

EMPHASIZE THE

GENUINE

IN YOUR

SOUND. LCT 640



LCT 640 Introduction

Thank you that you have opted for a LEWITT product. In this operating manual you will learn more about your LEWITT microphone, its handling and its proper usage.

We've put all our knowledge and all our passion for audio technology into building microphones for people whose standards for their own audio work and performances are just as high as our own. With the LCT Authentica series, LEWITT introduces a new generation of highly versatile wired condenser microphones that all aim for one thing and one thing only: to set new benchmarks of technology, sound quality and user-friendliness in both professional studio recording and onstage use. The mics of the Authentica series – especially the LEWITT LCT 640 – employ innovative technologies and a multitude of possible settings to offer a crystal-clear, authentic and characteristic sound for every imaginable application.

Day after day, be it for live acts, in home studios or in professional studio productions.

LEWITT wishes you a lot of fun and success with this product!

LEWITT's LCT 640 is the Authentica series' flagship, designed to raise the bar in its class of reference-quality large-diaphragm condenser microphones. This Austrian-designed and engineered pro-mic delivers a smooth, unsurpassably rich and exceptionally nuanced sound, and exhibits a remarkable set of qualities that enthuses even the most discerning users. The LCT 640 excels in a variety of demanding studio applications and stands for unrivalled performance in miking lead and background vocals, drums, percussion instruments, grand pianos, brass and woodwinds, classical music ensembles.

In addition to the standard omni-directional, cardioid and figure-8 polar patterns, the LCT 640 offers a wide-cardioid and super-cardioid characteristic. It offers a dynamic range of 135 dB and stands out for its extremely low self-noise of 10 dB-A. In combination with a 3-level low-cut filter and 3-level switchable pre-attenuation, the LCT 640 provides maximum versatility in all recording situations. Automatic attenuation, key-lock, clipping history, push buttons and a light-up user interface round off the features of this outstanding microphone.



LCT 640

Features

- Five directional characteristics cardioid, omni-directional, figure-8, broad-cardioid and super-cardioid – offer maximum flexibility
- Dynamic range of 135 dB
- Extremely low self-noise level of 10 dB
- Key-lock, clipping history and automatic attenuation
- Noiseless push buttons for attenuation and HPF selection
- Immune to electromagnetic interference thanks to transformerless output stage
- Extra-large hexagonal steel-mesh grille with ruthenium-galvanized finish (black)
- · Illuminated user interface for quick visual checking of settings
- Rugged construction for durable performance
- · Gold-plated 3-pin XLR output connector
- Comes in an elegant black aluminium case with foam layers; includes LCT 40 SHx shock mount, LCT 40 Wx windshield and DTP 40 Lb leather bag

Top applications

- Studio applications
- Live sound
- Lead and background vocals
- · Percussions, drums
- Grand pianos, brass and woodwinds
- · Classical music ensembles

User-interface

1 Status indicator

- 3 Noiseless polar pattern push button
- ② Polar pattern indications
- 4 Attenuation indications

Status indicator ①

- The microphone is in normal working mode if the status indicator is illuminated in white.
- The microphone is in key-lock mode if the status indicator is not illuminated.
- The microphone experiences clipping due to high SPL if the status indicator flashes in red.
- The microphone is in automatic attenuation mode if the status indicator is illuminated in red.
- The microphone indicates the clipping history if the status indicator flashes red and white in an alternating sequence.

Polar pattern indications 2

• The currently active polar pattern setting is illuminated.

- 5 Noiseless attenuation push button
- 7 Noiseless high-pass filter push button

Setting the polar pattern

6 High-pass filter indications

 Five different directivity characteristics – omnidirectional, broad cardioid, cardioid, supercardioid, figure-8 – can be set by briefly pressing the noiseless polar pattern push button ③.

Attenuation indications (4)

The currently active attenuation setting is illuminated.

Setting an attenuation level

 Attenuation levels can be set by briefly pressing the noiseless attenuation push button ⑤. Settings are: off, -6 dB, -12 dB and -18 dB. Attenuation is used in extremely high SPL environments in order to prevent clipping of the microphone, mixer and other audio equipment.

High-pass filter indications (6)

• The currently active high-pass setting is illuminated.

Setting a high-pass filter

• High-pass filters can be set by briefly pressing the noiseless high-pass filter push button ⑦. Settings are: Off, 12 dB / octave at 40 Hz and 6 dB / octave at 150 and 300 Hz. High-pass filters eliminate unwanted low frequency noise such as structure borne noise.

Automatic attenuation function

The microphone will automatically adjust to the next higher attenuation level if it experiences clipping due to a high SPL. The microphone enters and leaves the automatic attenuation mode by constantly pressing the attenuation push button ⑤ for more than 2 seconds. The microphone is set to automatic attenuation mode if the status indicator ① is illuminated in red. Please note that the microphone will need one second to adjust to the new attenuation level.



Key-lock function

The noiseless push buttons of the microphone can be locked and unlocked by constantly pressing the polar pattern push button ③ for more than 2 seconds.

Clipping history

Checking the clipping history lets you know if the microphone had experienced clipping in the past. The microphone displays the clipping history after constantly pressing the high-pass push button for more than 2 seconds. When in clipping history mode the status indicator flashes red and white in an alternating sequence, the polar pattern indications as well as the high-pass indications are not illuminated. Clipping history mode provides information and works according to the rules listed below:

- The last manually set attenuation level is indicated by a constantly illuminated attenuation LED. If clipping has occurred in the past this LED will flash.
- The clipping history information can only be accessed once. Clipping information will be deleted after leaving this mode by constantly pressing the high-pass push button ⑦ for more than 2 seconds.
- Clipping history information will be deleted once you access the automatic attenuation mode.
- Clipping history information will not be deleted when unplugging the microphone.

3 dB/unit 3 dB / unit Tech graph **Dimension** Broad-cardioid Omni 2590 4590 8590 15100 3 dB/unit dB ref. 1V/Pa dB ref. 1 V / Pa 500 1k Figure-8 3 dB/unit 3dB/unit AUTHENTICA LCT 640 dBref, 1V/Pa 500 1k 2k Super-cardioid Cardoid 2 MHz 4 MHz 5 MHz 15 MHz 15 MHz 2330 4330 15300 15300 250Hz 500Hz 0 dB ref. 1V/Pa dB ref. 1 V / Pa

Tech data

icon data			
Acoustical operating principle:	pressure gradient transducer, externally polarized	 Dynamic range of mic. amp.: Max. SPL for 0.5% THD: 	135 dB-A 145 dB, 0 dB preattenuation
• Transducer Ø:	25.4 mm 1 inch		151 dB, 6 dB preattenuation 157 dB, 12 dB preattenuation
Directional pattern:	omni broad-cardioid cardioid super-cardioid figure-8	 Preattenuation pad: Bass cut filter slope:	163 dB, 18 dB preattenuation 6 dB, 12 dB, 18 dB switchable 12 dB / octave at 40 Hz 6 dB / octave at 150 Hz 6 dB / octave at 300 Hz
Frequency range:Sensitivity:	20 20,000 Hz 13 mV / Pa (-38 dBV), cardioid 10 mV / Pa (-40 dBV), omni 9 mV / Pa (-41 dBV), figure-8	Rated impedance:Rated load impedance:Supply voltage:Current consumption:	< 150 ohms > 1,000 ohms 48 V +/- 4 V (IEC 61938) 5.5 mA (IEC 61938)
Signal/noise ratio:Equivalent noise level:	84 dB-A 10 dB-A, cardioid (IEC 61672-1) 12 dB-A, omni (IEC 61672-1) 13 dB-A, figure-8 (IEC 61672-1)	Connector:Dimensions:Net weight:	gold plated 3-pin XLR 158 x 52 x 36 mm 6.22 x 2.04 x 1.42 inch 430 g 15.2 oz.

LCT 640

Accessories









Cautions

- The capsule is a sensitive, high precision component. Make sure you do not drop it from high heights and avoid strong mechanical stress and force.
- To ensure high sensitivity and best sound reproduction of the microphone, avoid exposing it to moisture, dust or extreme temperatures.
- Keep this product out of the reach of children.
- Do not use force on the switch or cable of the microphone.
- When disconnecting the microphone cable, grasp the connector and do not pull the cable.
- Do not attempt to modify or fix it. Contact qualified service personnel in case any service is needed. Please do not disassemble or modify the microphone for any reasons as this will void users warranty.
- The casing of the microphone can be cleaned easily using a wet cloth, never use alcohol or another solvent for cleaning. If necessary the foam wind stopper can be washed with soap water. Please wait till it is dry before using it again.
- Also please refer to the owner's manual of the component to be connected to the microphone.

LCT 640 Warrant,

Warranty

All products manufactured by LEWITT GmbH feature a limited two-year warranty. This two-year warranty is specific to the date of purchase as shown on your purchase receipt.

LEWITT GmbH shall satisfy the warranty obligations by remedying any material or manufacturing faults free of charge at LEWITT's discretion either by repair or by exchanging individual parts or the entire appliance. Any defective parts removed from a product during the course of a warranty claim shall become the property of LEWITT GmbH.

While under warranty period, defective products may be returned to the authorized LEWITT dealer together with original proof of purchase. To avoid any damages in transit, please use the original packaging if available. Please do not send your product to LEWITT GmbH directly as it will not be serviced. Freight charges have to be covered by the owner of the product.

Certain products manufactured by LEWITT GmbH feature a limited five-year warranty. For this five-year warranty the same conditions as listed for the two-year warranty are applicable.

For further information please visit <u>www.lewitt-audio.com</u> or check your warranty card.

LCT 640

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LEWITT GmbH declares under its sole responsibility that LCT 640 complies with the European directive 2004/108/EC. The product has been tested according to harmonized European standards:

EN 55013:2001+A1:2003+A2:2006

EN 55020:2007

EN 61000-3-2:2006

EN 61000-3-3:1995+A1:2001+A2:2005

Product testing was carried out by TIMCO Engineering Inc., notified body number 1177.

LEWITT GmbH hereby declares under its sole responsibility that LCT 640 has been tested and conforms to the following FCC and ANSI standards:

FCC Part 15:2008 Section 15.109

ANSI C63.4:2003

Product testing was carried out by INTERTEK Testing Services Shenzhen Ltd.



WEEE note: Electronic waste has to be collected separately. Please bring this device to a local recycling center at the end of its life time.

Manufacturers signature:

Date: 18th November 2010 Place: Vienna, AUSTRIA

DI Roman Perschon CEO – Lewitt GmbH

Declaration of conformity can be downloaded at www.lewitt-audio.com or obtained from info@lewitt-audio.com.



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